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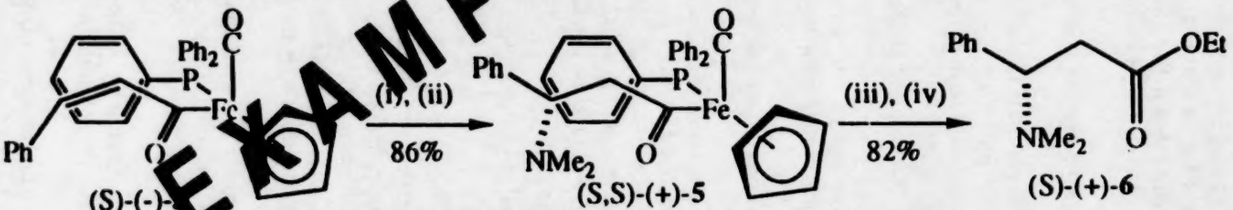
Tetrahedron: Asymmetry **1990**, *1*, 279

Assignment of the Absolute Configuration to Winterstein's Acid, (R)-3-Dimethylamino-3-phenyl Propionic Acid, by the Asymmetric Synthesis of Homochiral (S)-(+)-Ethyl 3-Dimethylamino-3-phenyl Propionate.

Stephen G. Davies, Jairton Dupont and Robert J.C. Easton
Dyson Perrins Laboratory, South Parks Road, Oxford, UK.

EXAMPLE

Asymmetric Synthesis of (S)-(+)-Ethyl 3-Dimethylamino-3-phenyl Propionate



(i) $LiNMe_2$; (ii) MeOH; (iii) NBS, HCl, H_2O; (iv) HCl/EtOH

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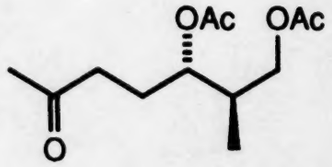

$C_{12}H_{20}O_5$

1,3-Diacetoxy-2-methyl-6-oxoheptane

EXAMPLE

E.e.=100.0% [by nmr with (-)-2,2,2-trifluoro-1-(9-anthryl)ethanol]

$[\alpha]_D^{24}$= -1.5(c 3.2,$CHCl_3$), -7.0 (c 1.6,EtOH)

CD: $[\theta]_{270}$ -400, $[\theta]_{215}$ -1200 (c 0.12,EtOH)

Source of chirality: natural and asymm. synth. (aldol)

Absolute configuration 2R,3S
(assigned by rel. X-Ray of synth. intermed. and Horeau's method)

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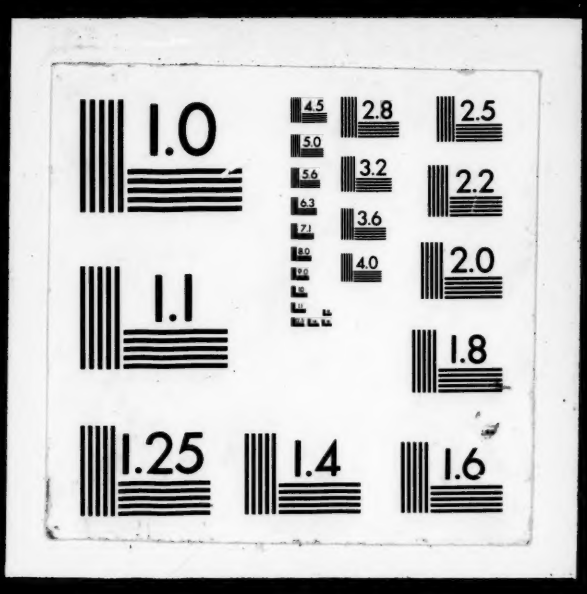
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